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09/982,787	10/22/2001	Tsuyoshi Namiki	Q66831	8411

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SUGHRUE, MION, ZINN, MACPEAK & SEAS
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037

EXAMINER

PATEL, NIRAV B

ART UNIT	PAPER NUMBER
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2135

DATE MAILED: 06/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/982,787

Applicant(s)

NAMIKI ET AL.

Examiner

Nirav Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the application filed on 10/22/2001.
2. Claims 1-30 are under examination.

Specification

3. The disclosure is objected to because of the following informalities:

Description of the Preferred embodiments on page 44 line 7, the output controller 66 should be the out put controller 57 (As per Fig. 7 component 57 output controller).

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3, 8, 11-13, 18, 21-23, and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Kori et al (US Pub. No. 2004/0028385).

As per claim 1, Kori discloses:

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an *adding device* [Fig. 1 component 8 Additional information addition section] for *adding the reproducing limit information to the supplied recording information to generate added recording information* [paragraph 0055 lines 2-5 “a contents ID, copy generation management information (i.e. reproducing limit information) and copying count management information as additional information to music data as contents information”, paragraph 0065 lines 4-11 “the additional information addition section 8 adds the contents ID, SCMS information and permitted number of times of copying from the contents ID generation section 3, copy generation management information generation section 4 and copying count management information generation section 5 to the digital audio signal of the music data to be recorded onto the CD 100”];

an *embedding device* [Fig. 1 component 2 WM superposition section] for *embedding the reproducing limit information on the recording information within the generated added recording information in a way of preventing from illegal detection to generate embedded recording information* [paragraph 0061 lines 1-7 “the electronic watermark processing is processing to embed information as noise into a portion which is present in video data or music data”, paragraph 0063 lines 2-7 “the WM superposition section 2 superposes the electronic watermark information corresponding to the contents ID, SCMS information and permitted number of times of copying formed by the WM formation section 6 in such a manner as described above onto the digital audio signal supplied thereto through the input terminal 1”]; and

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a *recording device* for *recording* the generated embedded recording information into the recording medium **[Fig. 1 component 9 recording processing section *paragraph 0067 lines 1-5* “recorded onto the CD 100 by the recording processing section 9”]**.

As per claim 2, the rejection of claim 1 is incorporated and further Kori discloses:

the *embedding device* **[Fig. 1 component 2 WM superposition section]** *embeds correspondence information* (i.e. copy count management information) corresponding to the reproducing limit information in one-to-one and having smaller information amount than the reproducing limit information, on the recording information, in a way of preventing from illegal detection to generate the embedded recording information **[*paragraph 0061 lines 1-7* “permitted number of times of copying supplied thereto to form electronic watermark information representing them. The electronic watermark processing is processing to embed information as noise into a portion which is present in video data or music data”]**.

As per claim 3, the rejection of claim 1 is incorporated and further Kori discloses:

a replacement information generating device (i.e. control section 50) for generating replacement information by using the reproducing limit information (i.e. copy history information); and a replacing device (i.e. control section 50) for replacing (i.e. changing)

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one part of the recording information with the generated replacement information to generate the embedded recording information **[paragraph 0099 lines 1-10 “if the permitted number of times of copying of the copy history information corresponding to music data instructed to be copied which is stored in the copying history information management memory 52 is one or more, then the control section 50 decrements the permitted number of times of copying of the copying history information by one to update the pertaining permitted number of times of copying of the copying history information stored in the copying history information management memory 52”]**.

As per claim 8, Kori discloses:

a reproducing limit information detecting device **[Fig. 3 the copy generation management information detection section 382]** for *detecting* the added reproducing limit information **[paragraph 0085 lines 2-4 “the copy generation management information detection section 382 detects SCMS information as copy generation management information”]**;

a reproducing limit information extracting device **[Fig. 3 the WM decoding section 41]** for *extracting* the embedded reproducing limit information from the recording information **[paragraph 0087 lines 1-5 “the WM decoding section 41 performs extraction and discrimination of the contents ID, SCMS information and permitted number of times of copying superposed as electronic watermark information on the output data of the selector 34 in the form of an audio signal”]**;

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a *recording information extracting device* [Fig. 3 the WM decoding section 41] for extracting original recording information from the recording information on which the reproducing limit information is embedded [paragraph 0087 lines 1-5 “the WM decoding section 41 performs extraction and discrimination of the contents ID, SCMS information and permitted number of times of copying superposed as electronic watermark information on the output data of the selector 34 in the form of an audio signal”]; and

an output control device for, only when the detected reproducing limit information *matches* the extracted reproducing limit information, *supplying* the extracted original recording information based on the reproducing limit information [paragraph 0098 lines 1-12 “the copying history information corresponding to the music data instructed to be copied is provided in the copying history information management memory 52. Then, if the permitted number of times of copying of the copy history management information corresponding to music data instructed to be copied which is stored in the copying history information management memory 52 is 0 (i.e. doesn’t match), then the control section 50 determines that copying by the initial permitted number of times has been performed already, and controls the recording/erasure control section 42 to inhibit execution of copying of the music data (i.e. doesn’t supply to output I/F)”].

As per claim 11, this is a method claim corresponds to apparatus claim 1 and is rejected for the same reason set forth in the rejection of claim 1 above.

As per claim 12, the rejection of claim 11 is incorporated and further claim 12 is a method claim corresponds to apparatus claim 2 and is rejected for the same reason set forth in the rejection of claim 2 above.

As per claim 13, the rejection of claim 11 is incorporated and further claim 13 is a method claim corresponds to apparatus claim 3 and is rejected for the same reason set forth in the rejection of claim 3 above.

As per claim 18, this is a method claim corresponds to apparatus claim 8 and is rejected for the same reason set forth in the rejection of claim 8 above.

As per claim 21, this is a recording medium claim corresponds to recording apparatus claim 1 and is rejected for the same reason set forth in the rejection of claim 1 above.

As per claim 22, the rejection of claim 21 is incorporated and further claim 22 is a recording medium claim corresponds to recording apparatus claim 2 and is rejected for the same reason set forth in the rejection of claim 2 above.

As per claim 23, the rejection of claim 21 is incorporated and further claim 23 is a recording medium claim corresponds to recording apparatus claim 3 and is rejected for the same reason set forth in the rejection of claim 3 above.

As per claim 28, this is a recording medium claim corresponds to recording apparatus claim 8 and is rejected for the same reason set forth in the rejection of claim 8 above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-7, 9, 10, 14-17, 19, 20, 24-27, 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kori et al (US Pub. No. 2004/0028385) and further in view of Kato (US Patent No. 6,343,281).

As per claim 4, the rejection of claim 1 is incorporated and further Kori discloses:

a *detecting device* [**Kori, Fig. 3 component 381 contents ID detection section**] for *detecting identification information* particular to each recording medium and previously recorded in the recording medium, prior to the recording of the embedded recording information [**Kori, paragraph 0085 lines 1-2 “the contents ID detection section 381 detects a contents ID”**];

the *embedding device* embeds the generated information [**Kori, Fig. 1**];

and the *recording device* records the generated information [**Kori, Fig. 1**].

Kori doesn't explicitly disclose that key information generating device, embeds the generated key information at starting and records the generated key information into a start information recording area.

However, Kato discloses that a *key information generating device* for generating key information for encrypting cryptographic information used for encrypting the recording information, by using the detected identification information [**Kato, col. 16 lines 24-26** “the temporary key generating circuit 505 is adapted to generate a temporary key to be used for temporarily encrypting the data”]; *key information* [**Kato, Fig. 12A identifier bit 231a**] on start information detected at *starting* the reproducing of the recording information to generate embedded start information, prior to the recording of the embedded recording information [**Kato, col. 15 lines 29-30** “the data structure 215b of FIG. 12A is obtained by adding an identifier bit 231a to the top of the data structure 215, col. 15 lines 34-38 the data read control circuit 401 of the data reproduction/copying processing section 334 or 334b, reads the identifier bit 231a or 231b”], and *records* the generated embedded start information into a start information recording area that is an area on the recording medium where the start information is to be recorded, prior to the recording of the embedded recording information [**Kato, col. 6 lines 66-67** “the data structure 215 (Fig. 12A) is used for transmission and recorded on a recording medium”].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of Kato into the

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teaching of Kori to use key information generating device for encrypting cryptographic information. The modification would be obvious because one of ordinary skill in the art would be motivated to utilize encryption system for confidential data transmission [**Kato, col. 2 lines 4-9 “as known and popular anti-fraud measures for data transmission, confidential data are often encrypted. Encryption systems are generally categorized as open key systems and secret key systems, although the latter are popularly used when data are to be transmitted and processed at high speed”**].

As per claim 5, the rejection of claim 4 is incorporated and further Kori discloses:

a *detecting device* [**Kori, Fig. 3 component 381 contents ID detection section**] for *detecting* the key information from the start information recording area when recording the embedded recording information into the recording medium [**Kori, paragraph 0085 lines 1-2 “the contents ID detection section 381 detects a contents ID”**];

the adding device [**Kori, Fig. 1 component 8 Additional information addition section**] adds the reproducing limit information and the encrypted cryptographic information to the recording information when recording the embedded recording information into the recording medium to generate the added recording information [**Kori, paragraph 0055 lines 2-5 “a contents ID, copy generation management information (i.e. reproducing limit information) and copying count management information as additional information to music data as contents information”, paragraph 0065 lines 4-11 “the additional information addition section 8 adds the**

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contents ID, SCMS information and permitted number of times of copying from the contents ID generation section 3, copy generation management information generation section 4 and copying count management information generation section 5 to the digital audio signal of the music data to be recorded onto the CD 100"].

Kori doesn't explicitly disclose that a cryptographic information encrypting device for encrypting the cryptographic information.

However, Kato discloses that a cryptographic information encrypting device [Kato Fig. 4 component 316 Encryption Circuit] for encrypting the cryptographic information by using the key information to generate encrypted cryptographic information [Kato, col. 7 lines 57-60 "the encryption circuit 316 encrypts the DVD-RAM data (the data structure 215) output from the CF altering section 317 by means of the temporary key Stk from the key sharing circuit 315"].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of Kato into the teaching of Kori to use a cryptographic information encrypting device for encrypting the cryptographic information. The modification would be obvious because one of ordinary skill in the art would be motivated to utilize encryption system for confidential data transmission [Kato, col. 2 lines 4-9 "as known and popular anti-fraud measures for data transmission, confidential data are often encrypted. Encryption systems are generally categorized as open key systems and secret key systems, although the

latter are popularly used when data are to be transmitted and processed at high speed”].

As per claim 6, the rejection of claim 1 is incorporated and is rejected for the same reason set forth in the rejection of claim 4 above.

As per claim 7, the rejection of claim 6 is incorporated and is rejected for the same reason set forth in the rejection of claim 5 above.

As per claim 9, the rejection of claim 8 is incorporated and further Kato discloses:

recording medium [Kato, col. 6 lines 66-67 Fig. 4 component 312 DVD-RAM, “the data structure 215 is used for transmission and recorded on a recording medium”],

a key information detecting device for detecting the key information from the start information recording area [Kato, col. 15 lines 34-38 “the data read control circuit 401 of the data reproduction/copying processing section 334 or 334b, whichever appropriate, and the CF altering section 317 (including that of the second embodiment) of the third embodiment reads the identifier bit 231a or 231b”];

an encrypted cryptographic information detecting device for detecting the encrypted cryptographic information from the recording medium [Kato, col. 8 lines 7-12 “the data reproduction/copying processing section 334 of the receiver 302 deciphers the

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data structure 215 received from the decryption circuit 333 or the read processing section 326 by means of the key bundle Mks it has and takes out the data encryption key Dk and the copy management flag CF”];

an obtaining device for *decoding* (i.e. decrypting) the detected encrypted cryptographic information by using the detected key information and obtaining original cryptographic information **[Kato, col.7 lines 6-11 “the decryption circuit 333 decrypts the encrypted data structure 215 received from the IEEE 1394 I/F section 331 by means of the temporary key Stk form the key sharing circuit 332 and delivers it to the data reproduction/copying processing section 334”];** and

a decoding device for *decoding* (decrypting) the extracted original recording information by using the obtained original cryptographic information and supplying the decoded recording information to the output control device **[Kato, col.7 lines 6-11 “the decryption circuit 333 decrypts the encrypted data structure 215 received from the IEEE 1394 I/F section 331 by means of the temporary key Stk form the key sharing circuit 332 and delivers it to the data reproduction/copying processing section 334”].**

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teaching of Kato into the teaching of Kori to use decryption circuit to decrypt the encrypted data structure. The modification would be obvious because one of ordinary skill in the art would be motivated to utilize decryption circuit to decrypt the encrypted data (used for confidential data transmission) structure **[Kato, col. 2 lines 4-9 “as known and popular anti-fraud**

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measures for data transmission, confidential data are often encrypted. Encryption systems are generally categorized as open key systems and secret key systems, although the latter are popularly used when data are to be transmitted and processed at high speed”].

As per claim 10, the rejection of claim 8 is incorporated and is rejected for the same reason set forth in the rejection of claim 9 above. Further Kori discloses: recording medium in which *content information* indicating the content of the recording information is recorded [Kori, *paragraph 0066 lines 1-8* “the additional information is recorded into the TOC (Table Of Contents) or a directory of the CD 100 so as to correspond to the music data recorded or is added to an area different from that of the music data but in a corresponding relationship to the music data”].

As per claim 14, the rejection of claim 11 is incorporated and further claim 14 is a method claim corresponds to apparatus claim 4 and is rejected for the same reason set forth in the rejection of claim 4 above.

As per claim 15, the rejection of claim 14 is incorporated and further claim 15 is a method claim corresponds to apparatus claim 5 and is rejected for the same reason set forth in the rejection of claim 5 above.

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As per claim 16, the rejection of claim 11 is incorporated and further claim 16 is a method claim corresponds to apparatus claim 6 and is rejected for the same reason set forth in the rejection of claim 4 above.

As per claim 17, the rejection of claim 16 is incorporated and further claim 17 is a method claim corresponds to apparatus claim 7 and is rejected for the same reason set forth in the rejection of claim 5 above.

As per claim 19, the rejection of claim 18 is incorporated and further claim 19 is a method claim corresponds to apparatus claim 9 and is rejected for the same reason set forth in the rejection of claim 9 above.

As per claim 20, the rejection of claim 18 is incorporated and further claim 20 is a method claim corresponds to apparatus claim 10 and is rejected for the same reason set forth in the rejection of claim 10 above.

As per claim 24, the rejection of claim 21 is incorporated and further claim 24 is a medium claim corresponds to apparatus claim 4 and is rejected for the same reason set forth in the rejection of claim 4 above.

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As per claim 25, the rejection of claim 24 is incorporated and further claim 25 is a medium claim corresponds to apparatus claim 5 and is rejected for the same reason set forth in the rejection of claim 5 above.

As per claim 26, the rejection of claim 21 is incorporated and further claim 26 is a medium claim corresponds to apparatus claim 6 and is rejected for the same reason set forth in the rejection of claim 4 above.

As per claim 27, the rejection of claim 26 is incorporated and further claim 27 is a medium claim corresponds to apparatus claim 7 and is rejected for the same reason set forth in the rejection of claim 5 above.

As per claim 29, the rejection of claim 28 is incorporated and further claim 29 is a medium claim corresponds to apparatus claim 9 and is rejected for the same reason set forth in the rejection of claim 9 above.

As per claim 30, the rejection of claim 28 is incorporated and further claim 30 is a medium claim corresponds to apparatus claim 10 and is rejected for the same reason set forth in the rejection of claim 10 above.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sako (US Pub. NO. 2002/0106192) discloses content data or a record medium composed of an encrypted data portion and a plain data portion, the encrypted data portion being composed of data of a content that has been encrypted, additional information data being embedded to the plain data portion, the additional information data containing information used for decrypting the data of the content that has been encrypted, the plain data portion being read before the encrypted data portion.

Hirai (US Patent No. 6,850,619) discloses that additional information for copyright protection is added to a video signal (first information signal) and an audio signal (second information signal), which are associated with each other and are independently usable, in a video watermark information superimposition unit and an audio watermark information superimposition unit, respectively.

Kuroda et al (US Patent No. 6,633,723) discloses a system comprising a recording apparatus for recording record information onto a recording medium and a reproducing apparatus for reading the record information from the recording medium and outputting it to reproduce, is provided.

Moriyama et al (US Patent No. 6,253,018) discloses an information recording apparatus (SS1) is provided with: a signal process device (72) for applying a predetermined signal process to record information (R), which is to be recorded onto an information record medium (1: DVD).

Sasamoto et al (US Patent No. 6,898,578) discloses a digital information recording apparatus to record digital information to protect copyright of digital information that includes at least first digital information and first copy control information.

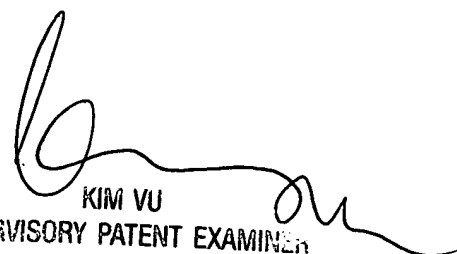
Ogino et al (US Pub. No. 2002/0028064) discloses The output device generates the PN code string every second chip interval with reference to the video sync signal, and spectrally spreads the additional information using this PN code string.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nirav Patel whose telephone number is 571-272-5936. The examiner can normally be reached on 8 am - 4:30 pm (M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NBP
6/2/05


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